

Strategy for Statewide Engineering Education in Kentucky

July 17, 2000

Kentucky needs a statewide strategy to educate more engineers and to integrate engineering education more closely into the technology-driven “New Economy.” The Council on Postsecondary Education, at its March 20, 2000 meeting, approved the recommendation that the public universities and colleges work together with the Council staff to design a statewide strategy to expand engineering education. The statewide strategy is intended to meet two primary needs:

1. the need to increase the number of baccalaureate engineers in Kentucky, and
2. the need to address regional issues of access and productivity in engineering education.

Kentucky’s progress in meeting these needs will be assessed periodically by the Council and all participating institutions.

The strategy for engineering education in Kentucky will eventually integrate secondary, baccalaureate, and post-baccalaureate programs. It will involve secondary schools, the Kentucky Community and Technical College System, the comprehensive universities, the research universities, the independent colleges and universities, and the Kentucky Commonwealth Virtual University.

Access to undergraduate engineering education will expand primarily through the creation of joint programs managed by multiple postsecondary institutions. The programs will be tailored to meet demonstrated regional or statewide needs. They will be separately accredited and degrees will be conferred jointly. All participating institutions will be involved in program development, delivery, and administration. Students will be able to complete all degree requirements at their home campus through resident instruction, courses delivered through the Kentucky Commonwealth Virtual University, or courses delivered by participating institutions through other distance delivery methods.

The Council would like to consider the first joint program proposals as early as November 2000. The Council will accelerate the approval process for joint programs that satisfy the criteria outlined in this strategy document’s final form.

The joint programs should build on the strengths of existing engineering programs at the University of Kentucky and the University of Louisville while accommodating employer needs identified by the comprehensive institutions. The University of Kentucky and the University of Louisville will agree which institution will have the responsibility for statewide development of joint programs by discipline with interested comprehensive institutions. All joint programs will become separately accredited by the Engineering Accreditation Commission of the Accreditation Board for Engineering and Technology (EAC/ABET) as soon as possible.

During the start-up phase of each joint program, the deans of engineering at the University of Kentucky and the University of Louisville will, on behalf of all participating institutions, recommend that the Kentucky State Board for Licensure for Professional Engineers and Land Surveyors grant approval to the joint program so that students may sit for the appropriate Engineering Fundamentals Examination administered by the board twice yearly in Lexington and Louisville.

The specific structure of each joint program may differ from one another, depending on the needs of area employers and the strengths of the institutions involved in each program. Prior to submitting a proposal for the Council's consideration, the appropriate faculty of each participating institution will agree on the appointment, tenure, and promotion policies for program faculty, the allocation of equipment and facilities, provision of student services, assessment criteria, and the general management of the joint program. Decisions regarding the salary, rank, and tenure of individual faculty members will be the responsibility of the employing institution. Adjunct or joint appointments to the faculty of the other participating institution(s) may be offered.

The Council staff will recommend to the Council appropriate funding for the equipment and facilities needs of the strategy as the Council develops its operating and capital budget recommendations for the next biennium. Funding could also be sought in the 2002 Legislative Session as part of the "New Economy" initiatives authorized in House Bill 572 of the 2000 session.

Working with the institutions, the Council will develop procedures for counting enrollments and graduates, disbursing funds, and establishing tuition rates.

The strategy is open to selected, non-duplicative, stand-alone engineering programs at comprehensive universities as well as to other types of multi-institutional arrangements. The strategy also envisions the continued strengthening and expansion of the existing engineering programs at the University of Kentucky and the University of Louisville and the development of new undergraduate and graduate engineering programs that support the strategic plans of both institutions and the "New Economy" initiatives.

The Kentucky Community and Technical College System and Lexington Community College will develop pre-engineering curricula (in conjunction with the University of Kentucky and the University of Louisville) that will enable community and technical college graduates to meet all third-year engineering entrance requirements of Kentucky's public baccalaureate institutions. In addition, the Kentucky Community and Technical College System and Lexington Community College may develop additional Engineering Technology programs at the associate degree level. The universities may also work with the Kentucky Community and Technical College System and Lexington Community College to offer such programs and to align associate and baccalaureate engineering technology programs. These programs will become accredited by the Technology Accreditation Commission of the Accreditation Board for Engineering and Technology (TAC/ABET) as soon as possible.

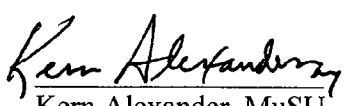
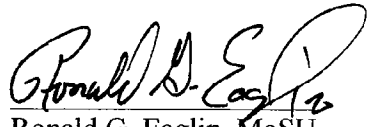

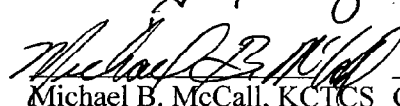
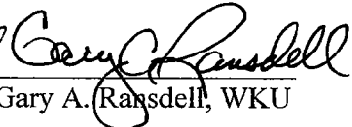

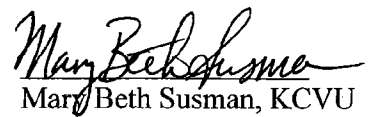
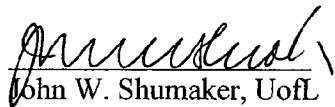
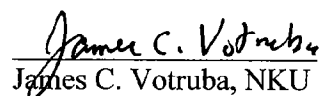
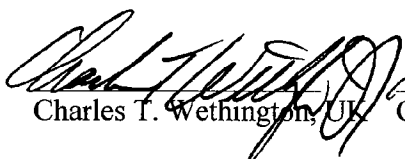
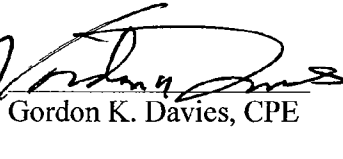
The strategy will encourage recruiting, mentoring, and placement initiatives for women and minorities.

The strategy envisions the creation of a clearinghouse for information about student engineering employment opportunities, including cooperative education, summer internships, and permanent employment with Kentucky businesses and industries.

Students at participating institutions will be encouraged to apply for graduate study in engineering at the University of Kentucky and the University of Louisville. Engineering articulation agreements, early admissions policies, and other strategies will be used to make the transition to graduate study as smooth as possible. The strategy is also open to the use of comprehensive institutions as remote sites for the delivery of master's programs of the University of Kentucky and the University of Louisville through resident instruction, courses delivered through the Kentucky Commonwealth Virtual University, or courses delivered through other distance delivery methods.

The Council will play its usual coordinating role in the development and implementation of the strategy, including adjudicating disputes, facilitating statewide discussions, measuring effectiveness, and determining statewide funding and construction needs.

Signed July 5, 2000

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